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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Robert W. Baxter

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EXAMINER

CORRIELUS, JEAN M

ART UNIT

PAPER NUMBER

2162

MAIL DATE

DELIVERY MODE

07/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/844,537	BAXTER ET AL.	
	Examiner	Art Unit	
	Jean M. Corrielus	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the Appeal brief filed on March 21, 2007, in which claims 1-33 are presented for further examination.

Reopening of Prosecution After Appeal Brief

2. In view of the Appeal Brief filed on March 21, 2007, PROSECUTION IS HEREBY REOPENED: New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

Response to Arguments

3. Applicant's arguments filed on March 21, 2007, with respect to the rejection(s) of claim(s) 1-33 under 35 USC 102/103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Grudowski US Patent no. 4,319,338 and Ohno et al., US Patent 5,396,485.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 12 –16 and 23-27 are rejected under 35 U.S.C. 102(b) as anticipated by Grudowski US Patent no. 4,319,338.

As to claim 1, Grudowski discloses an industrial communications network includes a microprocessor based interface circuits which each connect a controller (see abstract). In particular, Grudowski discloses the claimed “storing a command for the controller in a database, wherein the command is selected from the group of commands consisting of a write command that is configured to write a value of a real-time process control variable to the controller and a read command that is configured to read a value of a real-time process control variable from the controller”(a communication rung data stored in the controller interface memory, which is referred as the command rung index, see col.12, lines 23-47); “detecting the stored command in the database; and sending the detected command to the controller” (so, if the a start bit is set, a message is to be sent and the command instruction is read out of the controller memory and examined to determine whether a read, write, or bit control message is to be sent; however, if the data is to be read as determined by the decision block, then the message is formed by reading the remaining data in the command rung out of the controller, attaching a header according to the communication network protocol and storing it in a message buffer portion of the interface memory, on the other hand, if a write command is detected, an appropriate message is formed,

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the data in the command message is written into the specified location in the controller memory, see col.13, lines 1-17).

As to claim 2, Grudowski discloses the claimed verifying that the stored command is a valid command for the controller (if illegal command is detected, an error code is entered in the reply message before it is sent, see col.15, lines 5-7).

As to claim 3, Grudowski discloses the claimed wherein sending the retrieved command to the controller comprises sending a write command that is configured to write a first value of a first real-time process control variable to the controller, the method further comprising: sending a read command that is configured to read the first value of the first real-time process control variable to the controller responsive to sending the write command that is configured to write the first value of the first real-time process control variable to the controller (so, if the a start bit is set, a message is to be sent and the command instruction is read out of the controller memory and examined to determine whether a read, write, or bit control message is to be sent; however, if the data is to be read as determined by the decision block, then the message is formed by reading the remaining data in the command rung out of the controller, attaching a header according to the communication network protocol and storing it in a message buffer portion of the interface memory, on the other hand, if a write command is detected, an appropriate message is formed, the data in the command message is written into the specified location in the controller memory, see col.14, lines 58-67 and col.15, lines 1-5).

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As to claims 4 and 5, Grudowski discloses the claimed receiving a response from the controller responsive to sending the retrieved command to the controller (so, if the a start bit is set, a message is to be sent and the command instruction is read out of the controller memory and examined to determine whether a read, write, or bit control message is to be sent; however, if the data is to be read as determined by the decision block, then the message is formed by reading the remaining data in the command rung out of the controller, attaching a header according to the communication network protocol and storing it in a message buffer portion of the interface memory, on the other hand, if a write command is detected, an appropriate message is formed, the data in the command message is written into the specified location in the controller memory, see col.14, lines 58-67 and col.15, lines 1-5); and updating a status of the retrieved command sent to the controller in a command table in the database to indicate whether the retrieved command sent to the controller succeeded or failed (col.18, lines 15-29).

The limitations of claims 12-16 and 23-27 have been mentioned in the rejection of claims 1-5 above. They are, therefore, rejected under the same rationale.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-11, 17-22 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grudowski US Patent no. 4,319,338 in view of Ohno US patent no. 5,396,485.

As to claims 6-11, Grudowski discloses substantially the invention as claimed. However, Grudowski fails to update the respective current values for respective ones of the plurality of real-time process control variables with the respective values of the real-time process control variables read from the controller; monitor the current value of the at least one real-time process control variable to determine if the at least one event has occurred; and performing at least one of the notification method and the stored procedure if the at least one event has occurred. On the other hand, Ohno discloses the claimed updating a current value associated with the first real-time process control variable in a tag table in the database with the first value of the first real-time process control variable read from the controller responsive to receiving the response from the controller (col.14, lines 20-65); “monitoring the current value of the at least one real-time process control variable to determine if the at least one event has occurred (periodically monitoring the information registered; col.12, lines 65-67; and “performing at least one of the notification method and the stored procedure if the at least one event has occurred” (col.14, lines 20-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the control

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process as disclosed by Grudowski would incorporate the use of updating the respective current values for respective ones of the plurality of real-time process control variables with the respective values of the real-time process control variables read from the controller. One having ordinary skill in the art would have found it motivated to use such an updated current value that associated with the process control of Ohno into the Grudowski' system for the purpose of ensuring flexibility while maintaining the reliability of the network.

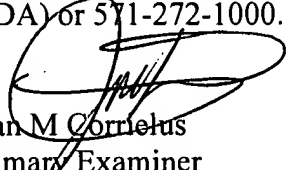
The limitations of claims 17-22 and 28-33 have been mentioned in the rejection of claims 6-11 above. They are, therefore, rejected under the same rationale.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jean M Corbelleus
Primary Examiner
Art Unit 2162

July 6, 2007



JEAN M. CORBELLEUS
PRIMARY EXAMINER

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

John Breene